



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,100	07/06/2005	Roelof Marissen	4662-18	4098
23117	7590	08/10/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			ISABELLA, DAVID J	
			ART UNIT	PAPER NUMBER
			3738	
DATE MAILED: 08/10/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/534,100

**Applicant(s)**

MARISSSEN, ROELOF

**Examiner**

DAVID J. ISABELLA

**Art Unit**

3738

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 is/are allowed.
- 6) ☐ Claim(s) 1-11, 14 is/are rejected.
- 7) ☒ Claim(s) 12, 13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Request for Continued Examination***

The request filed on 5/23/2006 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on Application No. 10/534100 is acceptable and a RCE has been established. An action on the RCE follows.

***Status of the Claims***

Claims 1-18 are pending in the application. Claim 1 has been amended. Claims 16-18, previously indicated to be allowable, remain allowable over the prior art. Claims 12,13 and 15 were objected to as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims remain allowable over the prior art.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-11,14 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Trieu (6733531).

Trieu discloses an artificial intervertebral disc, comprising a nucleus of flexible material with the shape of a flattened body, with a lower and an upper side connected by a lateral surface, around which at least substantially radially oriented windings of a traction-resistant fiber have been applied. See figures 18-25.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not positively recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The language of "at least one fiber wound around the lower, upper and lateral surfaces..." does not preclude the fabric of Trieu which contains fibers that may be broadly construed as being wound around the surfaces as broadly claimed. With respect to the limitation of "continuously wound", applicant's attention is directed to column 13, lines 21+, of Trieu that defines one embodiment of the strap as being continuous and extends completely around the implant.

respectively, in FIGS. 20 and 21, one continuous strap may be utilized that extends completely around the implant, or the strap utilized may be in multiple pieces, as long as the combination of straps are sufficient to prevent excessive slipping and or sliding of the supporting band. Furthermore, more than one strap may extend along upper surface 122 and more than one strap may extend along lower surface 123. For example, as seen in FIGS. 22 and 23, straps 820, 830.

While Trieu does not specifically define the fiber as being continuous, in column 14, lines 1+, Trieu discloses that the tension band can be of variety of forms, including fiber, woven or non-woven fabric.

superelastic behavior. Other metallic materials include titanium alloy, titanium, stainless steel, and cobalt chrome alloy. Suitable polymeric materials include, for example, polyethylene, polyester, polyvinyl alcohol, polyacrylonitrile, polyamide, polytetrafluoroethylene, poly-  
5 paraparaphenylene, terephthalamide and combinations thereof. The materials used to form the tension band can be in a variety of forms, including the form of a fiber, woven, or non-woven fabric, braided, bulk solid and combinations

As such, the two disclosures would appear to yield a tension band made from a continuous fiber that extends circumferentially around the body of the implant as broadly claimed. Applicant should note, that though examiner is not modifying Trieu with secondary teachings, woven implant from continuous fibers/filaments are well known in the art as taught by each of Therin, et al (US 2004/0138762), and Thompson et al (5957974).

Claim 2, see column 10, lines 48.

-----  
The implants can be shaped as desired. For example, the nucleus pulposus implants may take the form of a cylinder,  
50 a rectangle, or other polygonal shape or may be substantially oval. The implants may include elastic bodies 750 that are tapered, such as at one end, as seen in FIGS. 15A and 15B, in order to create or maintain lordosis. Furthermore, in certain forms of the invention, the implants generally con-  
55 form to the shape of the nuclear disc space. Additionally, implants can be sized to fit within an intervertebral disc space, preferably surrounded by an annulus fibrosis, or at least partially surrounded by an annulus fibrosis. That is, the implants preferably are of a height and have a diameter that  
60 approximates the height and diameter of an intervertebral

Claim 3, see figures 18-25.

Claim 4, column 13, lines 1+.

Claims 4-11, see columns 5,6 and 12.

Claim 14, see rejection to claim 1 supra.

### ***Allowable Subject Matter***

Claims 12,13,15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16-18 are allowed.

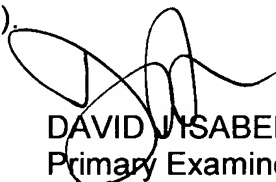
### ***Response to Arguments***

Applicant's argues that the claims now clarify that the at least one fibre is continuously woundd around the upper, lower and lateral surfaces of a nucleus of flexible material in the form of a flattened body so as to establish substantially radially oriented continuous windings about the lower and upper surfaces thereof; and that the bands/straps of Trieu cannot anticipate or render obvious the continuous winding of the fibre employed in the artificial intervertebral disc of the present invention. Examiner has maintained the rejection under Trieu as the continuous fibers about the implant is disclosed by Trieu. (Note, though examiner has not relied on Reiley (6066154), the claims as broadly worded fails to distinguish over the bands of Reiley which extend continuously about the implant body along geodetic lines. See figure 16. The claim does not preclude a single winding or turn about the body as illustrated by Reiley.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID J. ISABELLA whose telephone number is 571-272-4749. The examiner can normally be reached on MONDAY-FRIDAY.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CORRINE MCDERMOTT can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID J. ISABELLA  
Primary Examiner  
Art Unit 3738

DJI  
8/2/2006